Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Inquiry Concerning the Deployment of	)	GN Docket No. 12-228
Advanced Telecommunications Capability to	)	
All Americans in a Reasonable and Timely	)	
Fashion, and Possible Steps to Accelerate	)	
Such Deployment Pursuant to Section 706	)	
of the Telecommunications Act of 1996, as	)	
Amended by the Broadband Data	)	
Improvement Act	)	

COMMENTS OF THE
NATIONAL ASSOCIATION OF TELECOMMUNICATIONS
OFFICERS AND ADVISORS

The National Association of Telecommunications Officers and Advisors ("NATOA") submits these comments in response to the above-captioned Notice of Inquiry ("NOI"),[1] released August 21, 2012. NATOA's membership includes (1) local government officials and staff members from across the nation whose responsibility is to develop and administer communications policy and the provision of communications services for their communities; (2) communities that operate broadband wireline and wireless infrastructure for anchor institutions – serving the needs of government, schools, libraries, first responders, and emergency support

[1] *In re Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Ninth Broadband Progress Notice of Inquiry, GN Docket No. 12-228, FCC 12-91 (August 21, 2012).

personnel; and (3) communities that have constructed, or are in the course of constructing broadband infrastructure to meet public needs, or are offering broadband services to the public within their jurisdictions. These members manage networks in urban, suburban and rural areas across America.

NATOA and its members are representatives of the American people in the most fundamental and immediate sense. We are local governments and agencies, working directly with our respective communities to ensure that they have the most advanced communications services they need to compete in a global economy and better serve the needs of their residents. At the local level, we are in the unique position to understand what true, affordable broadband access might mean for our citizens and our communities. We urge the Commission to adopt a new, increased, and flexible benchmark for "advanced telecommunications capability" that will enable our residents to receive and transmit high-quality voice, data, graphics, and video communications.

I. Fixed Services: The Adoption of a New Minimum Broadband Speed Threshold is Imperative

America's local governments recognize broadband as critical infrastructure – a utility that is essential to economic and community development. Every year, the demand grows for faster speeds and more capacity. It is imperative that our definition of broadband keeps pace with the extraordinary growth of Internet usage and must account for – and enable – future growth and innovation. The failure to do so will hinder our ability as a nation to compete with nations abroad that have outpaced us in their deployment of high capacity broadband.

We continue to believe that the current standard of actual download speeds of at least 4 Mbps and upload speeds of at least 1 Mbps is simply too low in light of today's technological

advances and consumer needs. It also fails to recognize the speeds that broadband providers currently make available to consumers.

For example, Verizon new Quantum offerings "feature speeds of up to 300 Mbps downstream and 65 Mbps upstream, which are the nation's fastest, mass scale residential Internet speeds available" and which "likely will prompt competitors to increase the speeds of their broadband offerings."[2] When providers are able to increase the data speeds in their service area, it encourages "even more consumers to adopt broadband by enabling them to use broadband-intensive applications and services that only robust broadband connections can accommodate."[3]

. Comcast reports it has increased its available speeds "seven times in the last nine years" and has "recently *doubled* the speeds for two of its existing speed tiers in certain markets – from 25 to 50 Mbps and from 50 to 105 Mbps – at no additional cost."[4]

[2] *See* Comments of Verizon, MB Docket No. 12-203, at 9 (September 10, 2012).

[3] *See* Comments of the Organization for the Promotion and Advancement of Small Telecommunications Companies and the National Telecommunications Cooperative Association, MB Docket No. 12-203, at 5 (September 10, 2012). For example, it is believed that Cox Communications chose Lafayette, Louisiana as its first market to receive its 50 Mbps service, in part, due to the competition provided by the city municipal network. *See* K. Bode, Cox Launches 50 Mbps Service In Lafayette, available at: http://www.dslreports.com/shownews/101661

[4] *See* Comments of Comcast Corporation, MB Docket No. 12-203, at 14 (September 10, 2012). Comcast's action in increasing speeds without increasing costs to consumers was one we advocated for in previous comments. We believe that the costs for providing faster speeds are not significant and would not adversely affect the margins of the leading providers. *See* Comments of the National Association of Telecommunications Officers and Advisors, GN Docket No. 11-121, at 19-20 (September 6, 2011).

Even satellite broadband services appear capable of providing speeds higher than the current 4 Mbps/1 Mbps speed threshold. DirecTV states that it has partnered with ViaSat and Hughes "to provide high-speed satellite broadband, with promised speeds of over 10 Mbps."[5]

Finally, the speeds offered by some municipal providers compare favorably – and even exceed – those provided by private operators. For example, the Lafayette (Louisiana) Utility System ("LUS") offers a basic tier of Internet service of 10/10 Mbps for a monthly charge of $29.00, with speeds up to 100 Mbps available.[6] In Chattanooga, Tennessee, the Electric Power Board's ("EPB") slowest tier of service of 30 Mbps symmetrical, with 1 Gbps available to anyone in its 600 square mile territory.[7] And the Bristol Virginia Utilities ("BVU") provides speeds up to 1 Gbps.[8]

And we cannot forget Google's 1-gigabit fiber Internet project in Kansas City.

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[5] *See* Comments of DirecTV, LLC, MB Docket No. 12-203, at 13 (September 10, 2012). "But as consumers' appetite for online connectivity and content has grown, demand for slower broadband service (including DSL) has decreased." *Id.* at 16.

[6] R. Jervis, *Louisiana city blazes high-speed Web trail, available at* http://www.usatoday.com/news/nation/story/2012-02-01/broadband-telecom-lafayette/52920278/1

[7] *See generally* C. Mitchell, *Broadband At the Speed of Light: How Three Communities Built Next-Generation Networks, available at* http://www.ilsr.org/wp-content/uploads/2012/04/muni-bb-speed-light.pdf . Like Comcast, EPB recently announced that it was increasing the speeds of three residential tiers with no increase in cost to consumers: from 30 Mbps symmetrical to 50 Mbps symmetrical; from 50 Mbps symmetrical to 100 Mbps symmetrical; and from 100 Mbps symmetrical to 250 Mbps symmetrical. In addition, EPB reduced its monthly rates for its 1 Gbps symmetrical tier from $349.99 to $299.99. *See* L. Gonzalez, *EPB Fiber Increases Residential Speeds at No Extra Cost, available at* http://www.muninetworks.org/content/epb-fiber-increases-residential-speeds-no-extra-cost.

[8] *See generally Virginia Tobacco Commission: Funding Revitalization and Innovation in the Tobacco Region, available at* http://www.tic.virginia.gov/images/VA%20Business%20Magazine%20Ads/Broadband/June%202011%20Virginia%20Business%20Magazine%20Broadband.pdf

It is important to protect the trust of American consumers and to establish a definition for broadband that will support the applications available in the marketplace today, as well as rapidly emerging technologies and applications for teleworking, distance learning, and telemedicine. With this in mind, we believe, in the near term, that the minimum threshold speed should be revised upward and set at a sustained 10 Mbps, symmetric level at peak usage times, for residential and small business users, and at 1Gbps for enterprise users. We feel this standard is in line, for the most part, with currently available services and will enable the increased adoption of applications that require more than the current 4 Mbps/1 Mbps speed threshold.

II. The Minimum Broadband Speed Threshold Must Not be Static

These proposed end user-measured speeds represent workable short-term benchmarks based on today's applications and needs. But needs are continually changing and applications are emerging that demand far greater capacity. For example, the Verizon Media Server is a "single device that will serve as an entertainment hub for the home, streaming media to other Internet-connected devices in the home, including laptops, gaming systems, tablets, mobile phones, and even TVs that would communicate directly with the server over Wi-Fi."[9] And its Flex View service "allows subscribers to select from more than 15,000 titles using any screen (TV, computer or mobile) and watch that content on up to five registered devices."[10]

Comcast's Xfinity service permits subscribers to "program their digital video recorders ("DVRs") from their iPad, catch up on episodes of their favorite shows on their smartphones, watch live sports on their laptops, and much more."[11] To provide such services, the cable

[9] *See* Comments of Verizon, MB Docket No. 12-203, at 12 (September 10, 2012).

[10] *Id.* at 10-11.

[11] *See* Comments of Comcast Corporation, MB Docket No. 12-203, at 2 (September 10, 2012).

industry has invested billions of dollars updating their system to deliver "digital video, high-definition video, 3D video, and On Demand content, in addition to new services like facilities-based voice services and broadband Internet services."[12] These innovations and improvement are driven by consumers who seek a "seamless experience and the ability to use new and exciting device options."[13]

As a result, our national definition of broadband must keep pace with the extraordinary growth and innovation for current and future Internet use. This is why we again urge the Commission to avoid establishing a static point at which to gauge the progress and growth in the broadband market from one report to another. Potential revisions to the current threshold and periodic updates would help reach long-term national broadband goals and establishing a minimum sustained actual speed of 10 Mbps symmetric as the definition of broadband would ensure that broadband in the United States stays on par with international standards and keeps pace with consumer demands and technological developments.

Furthermore, a higher minimum threshold will ensure that federal and state funded broadband deployment projects will provide businesses and consumers with the speeds and capacity needed to support the applications they need and want.

III. The Commission Should Adopt a Higher Speed Threshold for Fixed Broadband Services to Elementary and Secondary Schools

We believe that establishing a higher speed threshold for fixed broadband services to elementary and secondary schools will further the goal of the National Broadband Plan of connecting an anchor institution in every community to affordable 1 Gbps broadband. Studies

[12] *Id.* at 5.

[13] *Id.*

have shown that most schools require a connection of 50 to 100 Mbps per 1,000 students. Unfortunately, however, it appears that "providers offer download speeds of at least 25 Mbps to only 63.7 percent of the nation's schools."[14] As a nation, this is simply unacceptable, especially considering the Commission's E-Rate Order that allows such funds to be used to connect to the Internet in the most cost-effective way possible.

However, cost-effective service should not be confused with slow service. For this reason, we urge that the Commission, at the very least, set a *floor* speed of at least 25 Mbps per anchor, subject to annual review and revision.

IV. Establishing Speed Thresholds for Mobile Broadband

The Commission should establish a minimum broadband speed threshold for wireless broadband services. According to the CTIA website, "wireless Internet is by far the fastest-growing, most competitive category of broadband connections, with technology innovations and new applications appearing almost daily." The incredible growth and consumer popularity of these services demands that the Commission examine the deployment and speeds of such services and we congratulate the Commission on moving forward with it plans to evaluate mobile broadband speeds in order to provide American consumers with needed information concerning mobile data services.

We are cognizant of the technological challenges a wireless network has that wireline networks do not. For example, spectrum is a limited resource and wireless coverage is subject to the number of subscribers using the service, distance from a tower, and other factors inherent in

[14] *In re Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act*, Ninth Broadband Progress Notice of Inquiry, GN Docket No. 12-228, FCC 12-91, at ¶ 12 (August 21, 2012).

wireless communications as a whole. On the other hand, wireless networks are complementary extensions of fiber optic networks that provide mobility and that can be deployed more quickly and at lower costs than a fiber to the premises network.

With industry's calls for more spectrum, lighter regulatory oversight, and increased access to limited communications infrastructure, American consumers, in return, should have a better idea of the quality of the broadband they are receiving from their provider. With some current 3G mobile broadband services offering peak download speeds of up to 3.1 Mbps, and 4G speeds up to ten times faster, we propose an initial speed threshold for mobile of 3 Mbps/768 kbps. We believe it is a workable threshold at this time – though, of course, the threshold should be subject to annual review and adjustment.

V. Role of Hot Spots in Consideration of Broadband Deployment

For many consumers, residential broadband service simply does not fit within the monthly budget and a growing number of consumers make use of free Internet services available at local anchor institutions and other Wi-Fi hot spots. As a result, residential and business subscribership rates alone do not tell the whole story concerning broadband deployment and adoption and the Commission needs to examine alternative means that consumers use to receive broadband services. Therefore, we continue to believe that the Commission should examine the availability of broadband at community anchor institutions, such as schools and libraries, and at Wi-Fi hotspots, such as coffee shops. But the Commission should be cautious in how it uses the availability of such services to determine the extent of broadband deployment and adoption in a particular jurisdiction.

For example, a group of cable providers recently announced plans to double the number of free public Wi-Fi hot spots to 100,000 by the end of 2012; however, this "free" service will be

offered to broadband s*ubscribers*.[15] Thus, rather than increasing the availability of broadband services to nonsubscribers, some Wi-Fi hot spots cater only to those already paying for services. While such hot spots add to the value of one's Internet subscription – and may spur increased adoption due to the added convenience and mobility they provide, their presence in a community should not be used to artificially increase deployment and adoption figures.

VI. Deployment Mapping: On-going Concerns

Any map is only as good as the information it contains. And while the State Broadband Initiative data ("SBI Data") collected by the National Telecommunications and Information Administration ("NTIA") may be the "most comprehensive and geographically granular deployment data publicly available," we agree with the Commission that mapping data "may tend to overstate deployment." For example, the deployment of DSL is overstated because the systems are tapped out in many areas and new customers cannot purchase service even where coverage is "available." And cable modem coverage is overstated because the maps are not granular and miss the cut-out areas where there is no service within a broader service area.

Further, complaints have been made that some "unserved" and "underserved" areas have been inaccurately characterized as "served" on the National Broadband Map. This may be a function of the procedures used by various state entities collecting and providing the data, such as collecting the data from private providers without sufficient oversight to verify its accuracy and/or because nondisclosure requirements prohibit public scrutiny of underlying data collected. Recently, in order to remedy this situation, the state of West Virginia "returned to broadband

[15] R. Krause, *Cable Firms Aim To Double Wi-Fi Hot Spots To 100,000, available at* http://news.investors.com/technology/091312-625650-cable-tv-operators-expand-wi-fi-hot-spots.htm

mapping the old-fashioned way, with local volunteers fanning out across various areas of the Eastern Panhandle to get a true picture of what broadband service is like on the ground."[16]

Unfortunately, not all jurisdictions have the resources to independently verify the data concerning the deployment and availability of broadband in their communities. As such, we encourage the NTIA to continue its efforts to update deployment data on a timely schedule.

VII. The Role of Municipal Broadband Networks

The National Broadband Plan speaks approvingly of municipal networks and the Commission must do more to foster their growth. Ongoing efforts by industry to preempt or severely curtail local government deployment of such networks act only to deny advanced services to un- and underserved communities.

Many Americans live in areas where there is simply no business case for a private-sector provider to provide high-speed broadband service or to improve current slow-speed service. As a result, some jurisdictions have opted for "self-help" to construct their own community networks or to partner with others willing to operate the system on behalf of local residents and businesses. As discussed above, these municipal networks often provide faster speeds at lower costs than private operators are able or willing to provide.

If the Commission ever expects to realize its broadband goals, it must recognize that we need to enhance, not diminish, the competitive dynamics that will lead to increased investment, innovation, deployment and adoption. We urge the Commission to include a discussion of such networks on its next report.

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[16] P. Dampier, *W.V. Does Broadband Mapping With Volunteers; No More Well-Connected Nation Money Flush, available at* http://stopthecap.com/2012/07/12/w-v-does-broadband-mapping-with-volunteers-no-more-well-connected-nation-money-flush/

VIII. Conclusion

Access to affordable, reliable broadband service is essential for all Americans. As such, a new minimum broadband speed threshold is needed that more accurately reflects the higher speeds now currently available in the marketplace, and that meets the increasing demands of the consuming public. We encourage the Commission to look at how the use of multiple devices is increasing consumer needs for speeds and capacity, and how anchor institutions and Wi-Fi hot spots are changing the ways consumers access and use the Internet.

Respectfully submitted,

Stephen Traylor
Executive Director/General Counsel
NATOA
3213 Duke Street, #695
Alexandria, VA 22314
703-519-8035
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